



# Active Bacterial Core Surveillance (ABCS) Report

## Emerging Infections Program Network

### *Haemophilus influenzae*, 2011



#### ABCs Areas

California (3 county San Francisco Bay area); Colorado (5 county Denver area); Connecticut; Georgia; Maryland; Minnesota; New Mexico; New York (15 county Rochester and Albany areas); Oregon; Tennessee (20 urban counties)

#### ABCs Population

The surveillance areas represent 42,421,940 persons.  
Source: National Center for Health Statistics bridged-race vintage 2011 postcensal file

#### ABCs Case Definition

Invasive *Haemophilus influenzae* (Hi) disease: isolation of Hi from normally sterile site in a resident of a surveillance area in 2011.

#### ABCs Methodology

ABCs personnel routinely contacted all microbiology laboratories serving acute care hospitals in their area to identify cases. Standardized case report forms that include information on demographic characteristics, clinical syndrome, and outcome of illness were completed for each identified case. Serotyping was done on Hi isolates at CDC and state laboratories. Regular laboratory audits assessed completeness of active surveillance and detected additional cases.

All rates of invasive Hi disease were calculated using population estimates for 2011. For national estimates, race- and age-specific rates of disease were applied from the aggregate surveillance areas to the race- and age-specific distribution of the 2011 U.S. population. Cases with missing data, excluding ethnicity, were multiply imputed using the sequential regression imputation method.<sup>¶</sup>

#### Reported ABCs Profiles

| Race  | No. | (Rate <sup>*</sup> ) |
|-------|-----|----------------------|
| White | 537 | (1.7)                |
| Black | 118 | (1.6)                |
| Other | 35  | (1.1)                |
| Total | 690 | (1.6)                |

\* Cases per 100,000 population for ABCs areas

#### ¶ Surveillance Note

At the start of this surveillance year (2011), missing race (n=64) data were multiply imputed using sequential regression imputation methods. Previously, missing race data were distributed in the same proportion as known cases.

| Syndrome                 | Cases                | Deaths                   |
|--------------------------|----------------------|--------------------------|
|                          | No. (%) <sup>*</sup> | No. (Rate <sup>†</sup> ) |
| Meningitis               | 54 (7.8)             | 1 (1.9)                  |
| Bacteremia without focus | 137 (19.9)           | 17 (12.5)                |

\* Percent of cases

† Deaths per 100 cases with known outcome

| Age (years) | Serotype                 |                          |                          |                          |  |  |  |  |
|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--|--|--|--|
|             | b                        | Non-b                    | Non-Type <sup>†</sup>    | Unknown                  |  |  |  |  |
|             | No. (Rate <sup>*</sup> ) | No. (Rate <sup>*</sup> ) | No. (Rate <sup>*</sup> ) | No. (Rate <sup>*</sup> ) |  |  |  |  |
| < 1         | 2 (0.37)                 | 13 (2.43)                | 17 (3.18)                | 2 (0.37)                 |  |  |  |  |
| 1           | 0 (0.00)                 | 5 (0.93)                 | 7 (1.31)                 | 0 (0.00)                 |  |  |  |  |
| 2-4         | 1 (0.06)                 | 3 (0.18)                 | 4 (0.24)                 | 4 (0.24)                 |  |  |  |  |
| 5-17        | 0 (0.00)                 | 7 (0.10)                 | 12 (0.16)                | 3 (0.04)                 |  |  |  |  |
| 18-34       | 2 (0.02)                 | 10 (0.10)                | 36 (0.36)                | 5 (0.05)                 |  |  |  |  |
| 35-49       | 0 (0.00)                 | 18 (0.20)                | 30 (0.34)                | 11 (0.12)                |  |  |  |  |
| 50-64       | 3 (0.04)                 | 39 (0.47)                | 92 (1.10)                | 14 (0.17)                |  |  |  |  |
| ≥ 65        | 4 (0.08)                 | 63 (1.18)                | 238 (4.47)               | 45 (0.84)                |  |  |  |  |
| Total       | 12 (0.03)                | 158 (0.37)               | 436 (1.03)               | 84 (0.20)                |  |  |  |  |

\* Cases per 100,000 population for ABCs areas

† Non-typeable isolates

#### National Estimates for Invasive Disease

Cases: 5,175 (1.66/100,000)

Deaths: 720 (0.23/100,000)

#### Healthy People 2020 Update

##### Invasive *Haemophilus influenzae* type b disease

Objective: Decrease the incidence of invasive *Haemophilus influenzae* type b disease to 0.27 cases per 100,000 persons less than 5 years of age.

| Age (year) | 2020 Objective | 2011 Rate <sup>*</sup> |
|------------|----------------|------------------------|
| < 5        | 0.27/100,000   | 0.09/100,000           |

\* Cases per 100,000 U.S. population < 5 years

#### For more information, visit our web site:

<http://www.cdc.gov/abcs>

#### Citation

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Available via the Internet:

<http://www.cdc.gov/abcs/reports-findings/survreports/hib11.pdf>